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A MODEL MOBILE CRANE

WHAT fun the boys could have with a fine crane like this! Running forward, picking up a load, then running forward again to drop the goods at a required spot. Such a crane as that shown here, known as a Mobile Crane is extensively used at goods depots, by the railway companies and at the docks and wharves.

As can be seen from the picture on this page, there is the motor and the chassis complete with bonnet and steering wheel and pillar. Then just to the rear of the driver's seat there is the upright supporting frame for the jib, all realistically worked out with cross braces just like the real thing.

Jib Arm and Pulley

The jib is pivoted between the uprights and held rigidly at the back by a stay wire. At the head of the jib there is the pulley over which the "cable" runs to be linked up with the winding drum below. On the spindle of the drum there is a crank and handle for winding the load.

Commence work on the chassis. You need a good flat piece of fretwood $\frac{1}{4}$ in. thick, 11ins. long and $3\frac{1}{2}$ ins. wide. The front portion of the piece tapers to $2\frac{1}{2}$ ins. wide from a point $2\frac{5}{8}$ ins. back, as will be seen in Fig. 1.

The dotted lines on this diagram show the position of the bonnet which is made up of two sides, measuring $2\frac{5}{8}$ ins. by 1in., a top $2\frac{5}{8}$ ins. square, a front instrument board $2\frac{3}{4}$ ins. long

by $1\frac{1}{2}$ ins. and the radiator front 2ins. by $2\frac{5}{8}$ ins. All these parts are $\frac{1}{4}$ in. thick except the instrument board which is $\frac{1}{8}$ in. thick.

Cut all the parts accurately with the fretsaw, glue them together and then to the chassis board. The side wheel bearings are each 11ins. long, $\frac{3}{8}$ ins. wide and $\frac{1}{4}$ in. thick. They are shaped simply as shown in Fig. 1, and where they have to conform to the taper at the front of the chassis a vee cut is made on what will be the inside of the pieces. The wood is

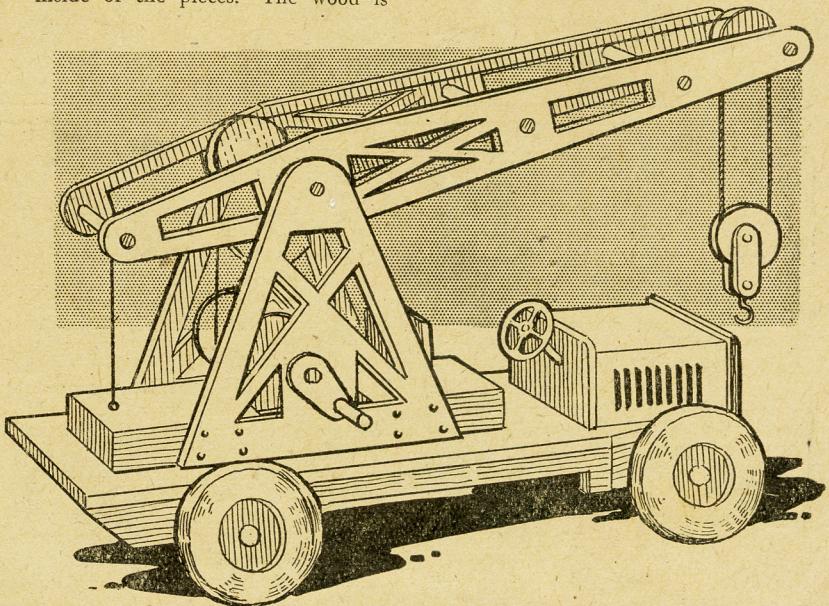
then bent to the required angle to fit the taper of the chassis to which they are glued. The vee cut is made $2\frac{5}{8}$ ins. from the front edge.

Chassis Additions

Of course, if this method of bending should be found difficult to do, then the two bearing pieces may each be made up in two pieces, the long back shorter portion being $8\frac{3}{8}$ ins. long and the front shorter piece $2\frac{5}{8}$ ins. long.

The holes for the axles of the wheels should be a full $\frac{1}{4}$ in. in diam., and their true positions may be measured off direct from the side view diagram (Fig. 2) which contains a convenient scale.

On the top of the chassis there are two plain blocks of wood, each 2ins. wide and of length and spacing shown



in Fig. 1. The rear block is placed $\frac{1}{8}$ in. from the back edge of the chassis. The next parts to cut out will be the two uprights shown in Fig. 3. These are cut from $\frac{1}{4}$ in. wood and are glued and nailed to the blocks just mentioned in the position shown in Fig. 2.

Draw out one of these pieces given and then cut it out with the fretsaw. Draw round it on another piece and round the fretted openings with a sharply pointed pencil. A similar process to the above will be followed

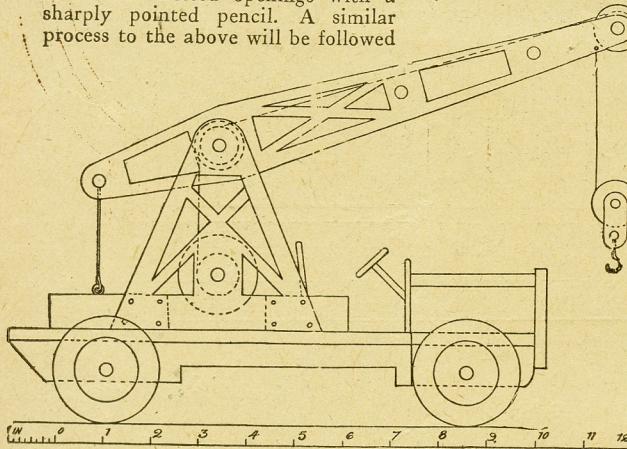


Fig. 2—Side view of model with scale

for making the crane arm shown in Fig. 4. Two parts here again will be cut from $\frac{1}{4}$ in. wood and held 1 in. apart in the clear by four pieces of $\frac{1}{4}$ in. dowel rod cut $1\frac{1}{2}$ ins. long.

The Lifting Pulley

At the jib end of the arm a pulley wheel is added to the dowel. This pulley wheel and the loose-running one below are 1 in. in diam. and $\frac{1}{4}$ in. thick, with a groove filed round the edges. The whole crane arm is pivoted to the uprights by another piece of $\frac{1}{4}$ in. dowel rod cut $2\frac{1}{2}$ ins. long.

After getting the desired angle of the arm, it is held at the rear end by a piece of wire passing over or through the dowel rod at that place and down to the wood block below where it is

held by a small screw eye. A third pulley similar to that at the jib must be placed on the pivoting dowel while this is being inserted.

The winding drum and its crank are shown in Fig. 5. An ordinary cotton reel will answer well for the drum which is held by a piece of dowelling cut 2ins long and to suit the hole running through the reel. The crank should be $1\frac{1}{2}$ ins. long and

$\frac{1}{4}$ ins. diam. and round off the edges.

Next cut four washers from $3/16$ in. or $\frac{1}{4}$ in. wood and 1 in. in diam., and let the hole in the centre be full $\frac{1}{4}$ in. diam., so the washers work freely on the axles. The latter consists of $\frac{1}{4}$ in. dowel rod cut in $4\frac{1}{4}$ in lengths for the $\frac{1}{4}$ in. thick wheels, but $4\frac{1}{2}$ ins. long if the wheels are $\frac{1}{4}$ in. thick.

Glue the wheels firmly to the axles after they have been passed through

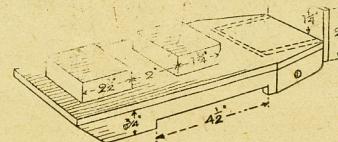


Fig. 1—The chassis parts

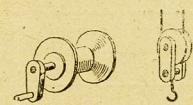


Fig. 5—Drum

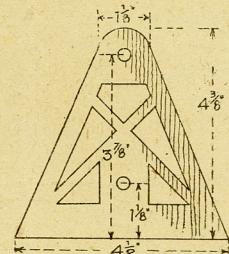


Fig. 3—The side pieces

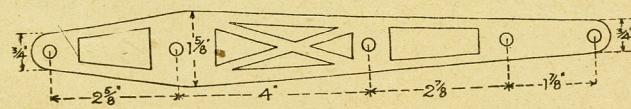


Fig. 4—How to mark and cut the jib arm

about $\frac{1}{8}$ in. diam., at the large end tapering to about $\frac{1}{8}$ in. at the handle end.

The handle will consist of a short piece of $\frac{1}{8}$ in. dowelling glued securely into the crank. It will be noticed that the front block of wood on the chassis forms the driver's seat. The back to the seat is made by gluing a $\frac{1}{8}$ in. piece of wood measuring 2ins. by $1\frac{1}{2}$ ins. along the top of the block and partly between the side uprights. A block of wood of small section may be glued behind the seat-back for further strength.

The steering wheel and its pillar are clearly indicated in the details. The four wheels should be of $\frac{1}{4}$ in. wood but $\frac{1}{8}$ in. stuff would answer almost as well. Cut four circles

the holes in the bearers. A length of fine string is used for fixing to the drum and carrying up over the two pulleys and down to that suspended below.

Finishing needs

Fig. 6 gives an idea for making the suspended pulley, two $\frac{1}{8}$ in. shaped pieces of wood being linked by short pieces of dowelling to the upper piece of which is pivoted the loose pulley. A hook made from suitable wire is fixed to the lower piece of dowelling.

The model should be painted up in bright colours, the chassis and uprights being grey, while the crane arm, drum, bonnet and wheels might be bright red. Get the paint on evenly and allow the colours to dry.

Aircraft of the Fighting Powers (Vol. iv)

THIS publication is gradually becoming the standard work for model makers, and for those interested in knowing details of shapes and peculiarity. The increasing range of aircraft being used in the war, has called for another of this series being prepared, and Vol. IV is a worthy successor to the previous ones. Published by such well-known sponsors as The Harborough Publishing Co., Ltd., of Newarke St., Leicester, and edited by D. A. Russell, it is worth the price of a guinea at which it is sold.

Its pages deal with 76 different planes with photographic views, detailed general information, and

1/72nd three-view scale drawings by which the models can be made. Apart from that, of course, the value for recognition purposes is very high.

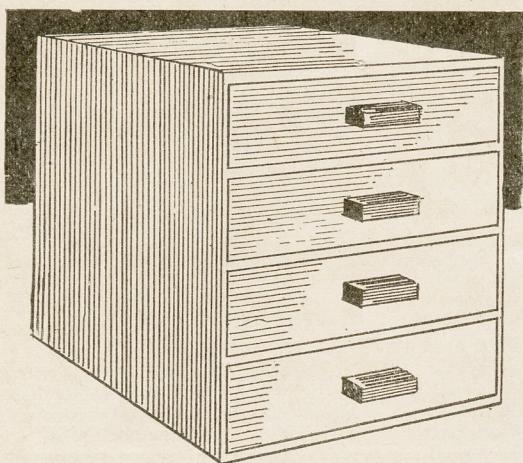
The large photographs of the planes are printed on splendid paper, and every detail stands out strongly. The detailed full size drawings are on sheets 16ins. by 11ins. and provide every view needed for making 1/72 scale models of planes at present in use, or coming into use by Great Britain, the U.S.A., Germany, Japan, and the U.S.S.R. In the case of the larger bombers, the folded pages provide a layout of drawing just 24ins. long, so that models nearly a foot long can be made.

This is the latest book published, and is complete in itself although it is most useful in conjunction with those published earlier. It includes the latest modifications in all the planes shown, including Spitfire V and IX, Mosquito II, Auster II, Lancaster II, Blenheim V etc.

Another useful lot of information is given in the international markings of various classes of aircraft with colour schemes and camouflage regulations of all types now in use.

By means of all this helpful information, the keen model maker can obtain technically correct results without having to sort through half a dozen books or a number of pictures.

For workbench or home you can find a use for CARDBOARD DRAWERS



THESE nests of drawers are invaluable in the workshop for holding small tools, drill bits, fretsaws, designs, and a dozen and one other small items. They are handy too in the home for holding in safe custody such things as licences of similar documents, clothing books, and so on.

It is important sometimes to know just where such things are, and not to have a time wasting search for them. The nest of drawers illustrated is made mostly from cardboard, as fretwood is too scarce nowadays to use for such a purpose, and plywood, the more usual material, almost unobtainable.

Suitable Material

Cardboard, however, of moderate thickness, makes quite a strong article, and was frequently used for the purpose even in pre-war days. The most convenient stuff to use is that from which boxes and cartons are made, such as can be got from a general stores, or grocers.

It is quite strong stuff. Normally such boxes could be got for the asking, tradesmen being glad to get rid of them, but now one must expect to pay for them, perhaps, as the tradesman himself is often charged for them.

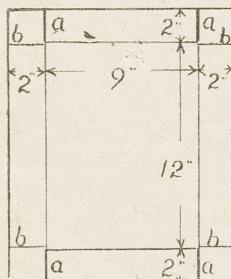


Fig. 1—Outline of drawer

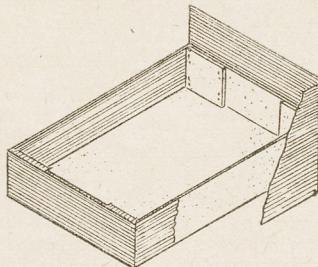


Fig. 2—The covering material

For the drawers, cut four rectangles of the cardboard to the size given in Fig. 1, outside dimensions. Draw the vertical and horizontal lines as shown, then draw the short lines, b, 1/16in. below them.

With a penknife, and straightedge, cut on these lines to one third through the cardboard to facilitate bending the stuff to shape. On the short lines, a, cut right through, then bend up to form a drawer, as in Fig. 2.

Fix the ends and sides together with wire staples, made from thin steel wire, or pins, the latter of course, having their heads cut off for the purpose. Wire staples about the size of those used to bind Hobbies Weekly will do nicely.

Covering the Drawers

For covering these drawers some fairly strong paper will be needed. Brown paper will serve quite well. Cut a strip for each drawer, long enough to go right round sides and ends, and say, 5ins. wide.

Paste this and rub well down to the cardboard, taking care to avoid any creases. Let 1in. be below the drawer and 2ins. above. Snip the paper at the corners with scissors and fold over to the inside of the drawer. The 1in. below is folded over to the bottom. Rub all well down. Fig. 2 shows part of a drawer so covered and will be helpful.

The case, holding the drawers, is made-up with cardboard sides and back and wooden top, bottom, and divisions. It is shown at Fig. 4. The wooden parts can be cut from any deal or box wood available, about $\frac{1}{8}$ in. thick, as long as it is planed smooth.

The top and bottom pieces are 12 $\frac{1}{8}$ ins. wide, the same as the cardboard sides shown at Fig. 3. The length will be equal to the width of the drawers, nominally 9ins. but actually a trifle more. Measure

carefully and allow a full 1/16in. extra for clearance.

Division Pieces

It will probably be necessary to glue two pieces together to make this width. The division pieces are 6ins. wide only—quite wide enough for the purpose as they need not extend the full depth of the case.

Cut the two cardboard sides to length given in Fig. 3. The height of the sides will be estimated from actual measurements of the drawers, etc. Normally, the drawers are 2ins. deep, but it will be found that these, owing to the cardboard used, may be a trifle more when made up.

The surest way is to place the four drawers on top of one another, and the wood parts on top of the drawers, and to measure the total height of the lot. Then cut the height of the cardboard sides to this total, allowing a full 1/16in extra for clearance.

Fixing the Parts

Mark pencil lines on the sides where the wooden parts will come, as shown. Then fix the top and bottom parts to the sides with glue and fretwork nails, also fix in the division pieces. Try the drawers in place, and if care has been taken they should slide in and out freely.

A safe plan to adopt is to nail in the wooden parts first, then to test for fit. If satisfactory, the sides can be carefully forced apart and then glue applied, and the whole re-nailed together, taking care, of course, to get the nails back in their former holes.

A cardboard back should now be cut for the case. This can be measured from the case itself. Fix it temporarily, and if the drawers go in a trifle too far (in any case the amount cannot be much) glue a strip of cardboard to the back, inside face of course, to act as a stop.

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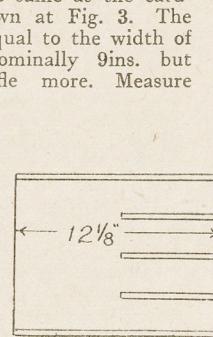


Fig. 3—The sides

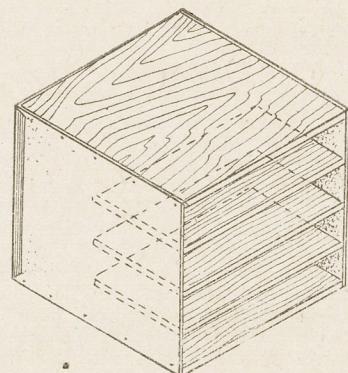


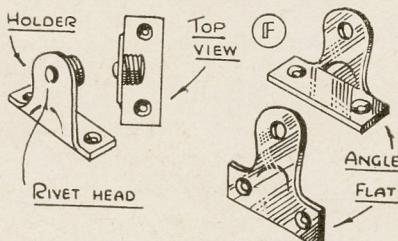
Fig. 4—Skeleton construction

ALPHABETICAL HINTS

F for Fixing Plates

FIXING plates, or wall hangers, are often wanted for fitting such articles as medicine cabinets, shaving cabinets, small wall clocks, shelves, etc. to a wall. It is, therefore, useful to know that old curtain rod fittings can provide you with two types of fixing plates, namely, plain plates and angle plates.

All you need to do is to remove the threaded butt screw from the holders.



The butt screws are usually attached to the plates with a rivet. By filing off the head of the rivet, the butt screw can be pulled away.

This leaves you with a neat angle fixing plate, complete with countersunk screw holes and a plain hole for the wall screw. If flat plates are wanted (in the case of the backs of clocks or mirrors) it is only necessary to hammer the bent flange of the plates flat.

Both the angle and flat plates are illustrated. Instead of hammering the plates flat, they can be placed between the jaws of a sash cramp and thus be pressed flat. If you (in view of the absence of a sash cramp or a vice) must hammer the plates flat, use an anvil for a support, such as an upturned flat smoothing iron or the side of a large hammer.

G for Griddles

GRIDDLE handles are imperative on griddles. The usual grips or "ears" become rather hot to hold. A good tip many people resort to is to bend a thin metal handle over the griddle, in an arc as shown, and in this connection, old bed laths come in very handy.

These laths are about $1\frac{1}{4}$ ins. wide by less than $1/16$ in. thick. They are made from sheet iron and, once a handle is bent to shape and fitted correctly, the handle will last indefinitely. However, failing an old bed lath, a hoop from a beer barrel

(or otherwise) can be used, seeing that such a hoop is not unlike a bed lath.

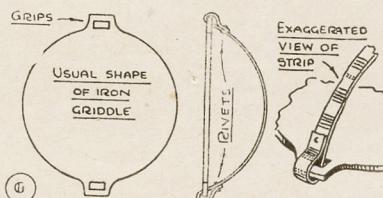
A Sensible Handle

Now, most people merely cut the band of sheet iron around the griddle grips and are content to leave it like that—a half-finished job, really. Far better—and wiser to fix the handle securely to the grips by means of rivets or small bolts and nuts.

The usual size of "arc" given to the handle can be judged from the side elevation. It will be seen how the ends of the hoop (or lath) are bent around and then secured with the rivets. If you use the latter, some kind of solid support will need to go beneath the head of the rivet. A head of a hammer is ideal as a temporary anvil.

Suitable Fixing

If you prefer to use small bolts and nuts, old Mecanno bolts and nuts will



serve. Bend the hoop around the grips of the griddle in the approved manner, then carefully remove the hoop. Bend the ends back into position again and proceed to drill the bolt holes through in the desired position.

Having inserted the ends into the grips again, the ends are bolted firmly together—and that's that! No need to paint the handle; just leave it as it is, as it will blacken in time. If you wish, a good heat-resisting enamel, such as black stove enamel, could be applied to the handle just to freshen it up and prevent any likelihood of rust. A thin, single coat is all that is necessary.

H for Handles

HANDLES for cisterns are easily made from old, disused, bradawl handles (large size) and press-button pear switches (electric bell type). The latter are generally turned in a hardwood and are neatly finished. It is only a matter of unscrewing the white celluloid fitting from the top, pushing the ends of a loop of wire, through

turning the ends over a trifle, then screwing the fitting back in place.

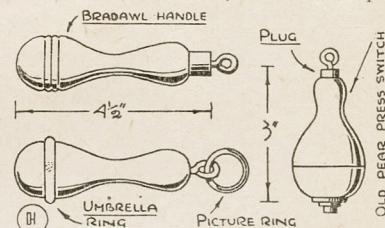
This leaves you with a loop of wire (we mean wire about $3/32$ in. thick or thereabouts and not hair-pin wire) at the top of the fitting to which the chain can be connected, or if not possible, the loop could have been connected to the chain prior to inserting the wire ends into the fitting and turning them over to grip the base of the fitting.

Dowel Handle

Another plan is to glue a piece of dowel or a plug of wood, into the top of the switch handle. A suitable screw-eye is screwed into the plug, following which the "eye" is opened with the nipper, the chain loop inserted, then the eye closed again. The usual size and shape of a pear bell switch is shown in the diagram.

The bradawl handle needs to be plugged with wood at the tang hole. A brass screw-eye is then screwed into the plug; the chain is attached to the screw-eye in the same way as above.

In order to disguise the fact that you have made use of a bradawl handle, the brass ferrule could be sawn away, then the tang hole plugged Screw in a screw-eye and fix a split



ring to it. Incidentally, a picture fitting will provide you with a screw-eye and split ring.

To prevent banging against the wall, a buffer (in the form of a rubber ring) could be fitted to the handle, as shown. It is only a matter of filing a V-groove around the handle and slipping the ring (an umbrella rubber ring) over it. These umbrella rings are used to keep the rib tips bunched together.

Colouring

The handle could be enamelled a jade green colour or a deep brown colour. Ebony black is much too dark. Something light and bright is wanted so the handle can be seen easily. If the state of the clear varnish finish is fairly good, a new coat of varnish could be applied to freshen it up.

Do this in a warm room and hold the handle on an awl during painting.

A quaint moving model from odd pieces of wood is THE NODDING PARROT

We are sure our fretworkers will like to make the quaint little moving model shown in our sketch on this page. Here we see a brightly painted parrot sitting on its perch, and as his stand is trundled along he does a series of graceful nods forwards and backwards.

This movement is brought about by a simple crank and wire attachment to the front pair of wheels and to the tail of the bird.

We are able, in this issue, to devote a whole page to this design; and all the parts are therefore shown full size on cover iv, so no tracing or enlarging is necessary on the part of the worker.

The Base

Take in hand first the base shown whole on the design page. Stick this pattern down to a piece of $\frac{1}{4}$ in. wood. Cut out the opening at the front end, the mortise A and then round the outline.

At the points on the pattern where it says "nail" prick in holes at the side of the piece of wood that is, halfway in the thickness of the piece. This will give the exact place for nailing on the two back wheels later.

Next bore holes again midway down the thickness of the wood, at points where the crank wire meets the top edge on the pattern sheet. This is indicated in the illustration Fig. 1.

Uprights

Proceed next with the cutting of the upright containing the tenon A. This is of $\frac{1}{4}$ in. wood, and the pattern can be stuck down and cut out. Test the length of the tenon with the mortise in the base to get a tight fit. Now bore a hole through each of the top projections to take the pivoting wire. The circled diagram in Fig. 1 makes it clear how this should be done.

To stiffen the upright,

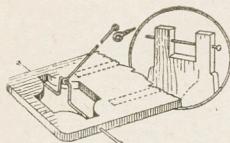


Fig. 1—Detail of moving parts

four small brackets B are cut as the patterns show, from one strip of wood and glued in the angle according to the dotted lines shown. The stand is now ready to receive the moving parts, including the bird. The latter should be made first and fixed to its pivot. Cut the pattern of the bird, therefore, from the sheet and paste to a piece of $\frac{1}{4}$ in. wood.

There are two methods of finishing the bird. The pattern may be stuck down to the wood and then coloured with water-colour paints. The better method however, would be to trace off the outline of the bird, holding the pattern down to the wood with a piece of carbon paper, between, and using a sharp-pointed pencil to go round the outline.

Next cut round the outline with the fretsaw and clean off both surfaces and edges with fine glass-paper. The final colouring may now be done in bright enamel or oil paint, the printed design being a helpful guide in completing this work.

Painting the base and its upper parts may also be done now, if desired, before the wheels and wires are added.

Two of the four wheels required are shown at D. These may be $\frac{1}{4}$ in. or even thicker. Do not make the holes too large in the centres of the wheels for the front crank wire as they have to be driven on to hold tight.

Back Wheels

For the back wheels, however, the holes in the centres should be large enough to allow them to revolve freely round a stout wire nail. Stout wire should be chosen for the front crank which may be bent to the outline shown dotted on the plan of the base on the design sheet. The outer ends of the wire should be hammered to a flat so when the wheels are driven on a good grip between wire and wood is obtained.

The wire connecting the crank with the tail of the bird is made to the length shown in the diagram at the



Full size Patterns are on Cover iv of this issue

top of the design sheet and the eyes at the ends may be made with round-nose pliers.

Next cut the two washers C from $\frac{1}{4}$ in. wood and glue one each side to the foot of the bird to hold it erect when it is pivoted to the upright.

Bore a hole in the tail of the bird and put in an ordinary screw eye and make the connection between this and the crank wire. Run the pivot wire through the feet of the bird and test the mechanism to see all is correct.

Pull-along Cord

A piece of wire to form a loop for the cord to pull the bird along at the front might be made or the cord run through a hole made in the front of the base.

The parrot, of course, is painted green with one or two wing feathers and that portion round the eyes painted bright red. The beak should be black, and the eyes yellow with dark blue or black middle. The base is red with buff or yellow for the four brackets and green for the wheels. Take care to paint the article nicely

Cardboard Drawers—(Continued from page 115)

Fix the back in with glue and nails to both top and bottom, and to the sides with strips of brown paper, or linen, over the corners.

The outside of the case should be covered with paper to match the drawers. Perhaps the easiest way to do this will be to first cut a strip 14 ins. wide and long enough to go round sides, top, and bottom.

Paste this to the case and fold over

the laps back and front. This will leave the front edges of the divisions uncovered, as strips of paper should be cut to length and be pasted over them to cover the wood. Finally, cut a sheet to cover the back and paste that over.

For handles, strips of wood, say $\frac{1}{2}$ in. by $\frac{1}{4}$ in. and $1\frac{1}{2}$ ins. long, can be prepared. These are fixed to the drawers with glue and a couple of

fine nails. It is desirable to paint or varnish them.

The outside of the nest of drawers can be left plain, but a finish of some kind is really best if only to protect the paper covering. A couple of coats of varnish would do this nicely, and if a stain like oak or mahogany, is used beforehand, or a combined stain and varnish, quite a good result will be obtained.

When, how and why you should undertake CHAMFERING WOOD

ONE of the operations to which beginners with fretwork tools pay too little attention, is that of chamfering and shaping the edges of wood where necessary. Chamfering is generally done for two reasons, and consists of cutting the edge of the wood at an angle evenly along its whole length.

One reason for this is when two parts are joined together to make a rightangle, and a corner as one thin line only. In the ordinary butt joint, of course, the two parts stand together end to end. In the chamfer joint the edge is shaped down to an angle of 45 degrees as shown at Fig. 1, so the two parts together form a natural corner as shown in the circle of that diagram.

It Looks Better

The other reason for the chamfer is to reduce the apparent thickness of the wood. For instance, an overlay fitted round a photograph or mirror looks very much better if its inner edge is chamfered and sloped down towards the picture. The thickness of the wood does not seem so great, and a better effect is obtained. The edges of some work, of course, are sometimes rounded, but this is to form a bead effect.

This question of chamfering is one which workers would do well to master before they actually undertake it on special work. There is a right way and a wrong way of doing it, and it is well worth trying it out first on a piece of waste wood. This chamfer you will notice, is often shown as part of the design to indicate where it is to occur, and is indicated by a shaded portion on the pattern as shown in Fig. 2.

With Plane or File

This shaded portion is supposed to be a cut through the wood, and shows what it looks like when finished, as you see at B in Fig. 2. To obtain this effect you can use a small plane or file. In any case, the work must be held solidly in a vice.

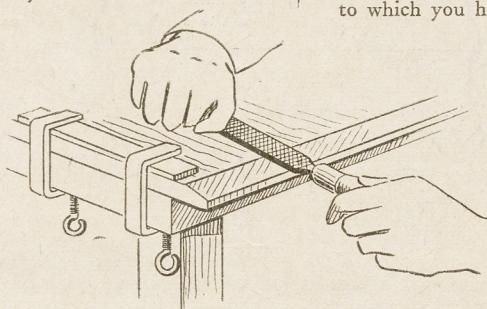


Fig. 4—How to hold the file across the work

The main point is that the chamfer is even and flat the whole length of the wood—particularly if it is going to form a joint against another one. In that case, of course, the angle of the chamfer is 45 degrees (see Fig. 1) and comes to a feather edge at the bottom. Not all chamfers are like this, however, and the longer sloping effect can be obtained as at Fig. 3.

No Feather Edge

Notice in this, however, that the chamfer does not fade right out to the edge of the wood, but a little thickness is left. This is advisable if at all possible, because it is most difficult on a long chamfer to get it to fade out evenly along the edge.

The planing, of course, is undertaken with a small fretwork plane, and

final angle is shown by the dotted line across the wood in Fig. 5.

The great point with the file is to maintain an even steady stroke. The tendency is to round off at the end of each stroke, and this is fatal. Keep the file firmly under control, and afterwards test the flatness of the chamfer by standing a rule along it.

Tedious Work

The work may be a little tedious if there is much to do, so the operation should be mixed in with cutting out or fitting.

If you are using the chamfer to an end grain, remember not to carry the plane right across the wood. If you do, you will break out the grain on the opposite end, and so spoil the whole work. Cut gradually from

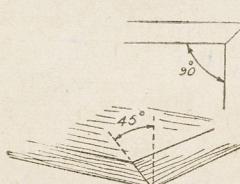


Fig. 1—The angle

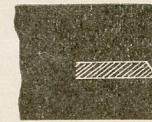


Fig. 2—Drawing and work

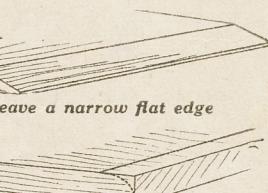


Fig. 6—A rounded edging

an even smooth shaving taken off the whole length. If you are not using a plane, a rasp will take off the original corner and save a lot of work which would be laborious with a file. The file is used finally across the grain of the wood, with an up and down motion, maintaining the same angle the whole way. This angle and how to hold the file is shown at Fig. 4.

Marking a Line

Before starting any chamfer, however, the distance to which it should extend must be marked on the work. If you are using $\frac{1}{4}$ in. wood and are wanting a 45 degree chamfer, then obviously it will extend $\frac{1}{4}$ in. deep along the top of the board. For this reason a pencil mark should be run along (see Fig. 5) or you can use a marking gauge. This line is the one to which you have to work, and the

one end, then turn the work round and proceed inwards from that end until you have an even chamfer the whole length.

So far as the rounded effect is required and previously mentioned, this is quite a simple matter, and undertaken with the same tools as for the chamfer. A mark either with gauge or pencil should be run along as before, and the rounded effect marked also on the end of the wood as shown in Fig. 6.

A Rounded Edge

The original work can be taken away with rasp or plane, but in this case the finish is done with glasspaper after the file is rounded off nearly to the finishing lines. A fine glasspaper is required to get an even semi-glossy finish.

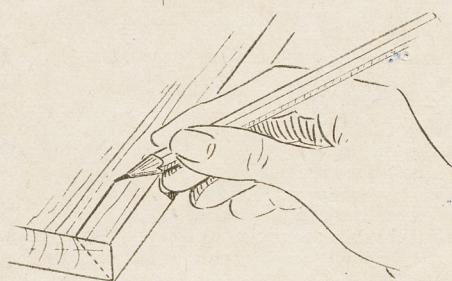


Fig. 5—Marking the distance with pencil line

Those in the country should know the method of CURING RABBIT SKINS

CURING rabbit skins and making useful articles from them is a very popular hobby at the present time. The process is apt to be regarded as being somewhat difficult, but really, there is no art or "trade secret" in it. One simply needs to exercise care.

Different people have different methods for curing the skins, but in the end, these processes all boil down to the same thing. The chief drawback is that the skins must not only be cured and rendered pliable, but that the curing must be done in such a way that the fur does not fall out.

The use of saltpetre and alum is generally supposed to be ideal in preventing the hair from coming out, apart from curing the skin. Further treatment is diluted tannic acid, or in an oak bark solution, helps to preserve the skin somewhat and give it a healthy tone, but these solutions are liable to make the skin unduly hard and troublesome to soften later on.

A Reliable Method

The following details follow a reliable method with which even the beginner should be successful. Assuming one had obtained the pelt, it must be prepared by scraping off every trace of flesh adhering to the skin.

Scraping is done over a convex or rounded surface, using a non-too-sharp knife so as to avoid cutting into the skin layers (skin, even your own skin, is made up from thin plies, incidentally). If the cleaning is done on a flat surface, a slightly-curved knife edge is preferred. Large penknives, such as the stock type, are ideal, the largest blade having a nicely curved edge.

Some workers do the scraping by supporting the skin over a baluster rail. The skin is stretched over it, then each portion carefully scraped until quite clean. Avoid flaying (cleaning) the skin too much for, like an ink eraser on a thin paper, you are apt to "dig" into the first layer of skin and "lift" it unnecessarily. And, on no account attempt to clean the skin by rubbing it with coarse glasspaper, because the latter is as bad as using a sharp instrument.

The Salt and Alum Bath

After flaying, the pelt must be immersed in a bath containing 1 part of common salt and 4 parts of alum. Put these ingredients into the bath first, then add just sufficient warm water to dissolve them properly. If the quantity of water is insufficient to cover the felt wholly, add more

water and alum and salt, or else use a smaller bath. Allow the latter to melt in the water before immersing the pelt, which by the way, must remain in the solution for several days—at least, three days should elapse before taking it out.

The best test to apply to find if the skin is soaked properly is to fold it over on itself and press the fold flat with the palm of the hand. If a resultant clear, white line marks the fold (much in the same way one sees it in a folded piece of greased, waterproof paper or lampshade parchment paper) in a definite manner, the soaking need not be further prolonged.

Rinse the pelt in clean, warm water, hang up to drip for awhile. It is unwise to try squeezing the excess water from the fur. While dripping, prepare a flour paste of thin consistency.

This paste is rubbed into the skin with the finger tips, rubbing in a circular motion and backwards and forwards so all pores, and parts, are well filled and covered. The next procedure is to wash off the paste in a plentiful supply of cold water, following which the pelt is hung up on a line (with clothes pegs) to drip and dry out.

Do not, however, allow the skin to become thoroughly dry. While it is still clammy and moist, it should be stretched out on a flat surface, skin side uppermost, of course, and then be rubbed with fine pumice powder. The latter must be sprinkled on evenly and not in lumps.

As soon as the powder is rubbed on, it is washed off and the pelt stretched out flat to dry—quite dry, this time.

If in a hurry, the drying should take place in a cool, airy place, such as in a garden shed or outhouse. It is wrong to endeavour to speed up the drying by keeping the pelt near a fire or in a warm room; it is liable to dry

rather twisted and hard.

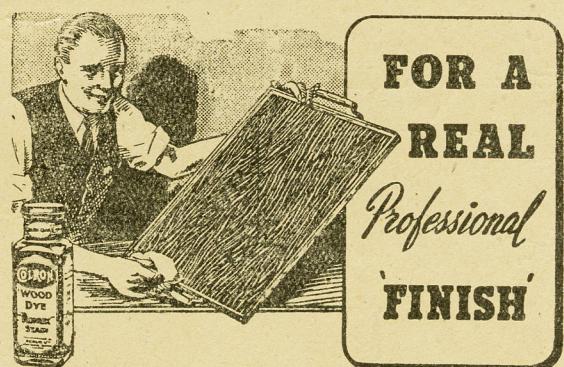
When it has hardened gradually, the hardness is removed by taking parts of the felt between the fingers and thumbs of both hands and rubbing it together. The softening up process takes patient handling—and a long time to perform properly. The more the skin is rubbed about, the more pliable it will become, so do not expect rapid results.

Softening With Oil

When the skin is very leathery, one may resort to the use of a softening oil, such as neat'sfoot oil. Only a little of the oil should be rubbed into the skin. If the oiling is overdone, the skin becomes rather flabby and sticky. Consequently, caution must be exercised.

At this stage of the proceedings, the felt could be treated with the tannic acid solution previously mentioned. If you desire to try it, the pelt is immersed in a solution of the acid, diluted with water to be quite weak.

This tans the skin, but makes it somewhat more difficult to soften. The oak bark solution is not just so bad, but both treatments may make all the difference to your curing of the skins.



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See Page 117 for constructional details

